JVC

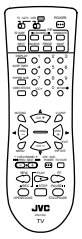
SCHEMATIC DIAGRAMS

COLOR TELEVISION

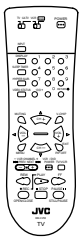
AV-32360/M/R/Y, AV-32S36/M/R/Y
AV-32330/M/R/Y, AV-32S33/M/R/Y
AV-32320/M/R/Y

BASIC CHASSIS
GE

CD-ROM No.SML200206

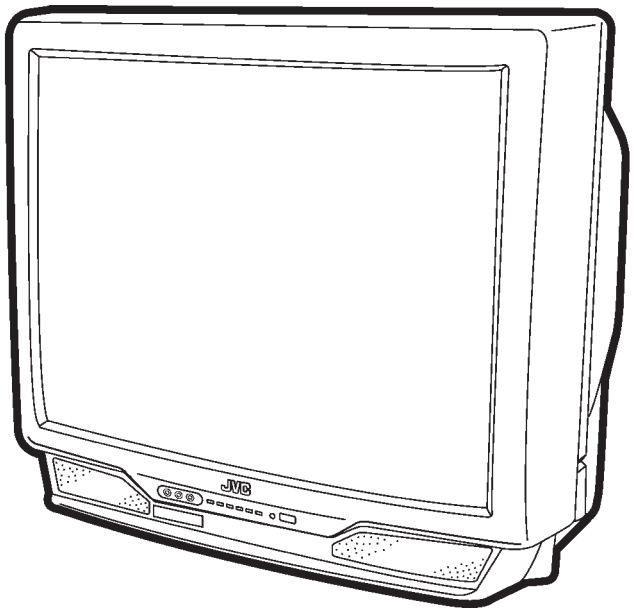


[RM-C254]
AV-32360
AV-32S36



[RM-C255]
AV-32330
AV-32S33

[RM-C205]
AV-32320



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No.51951
May 2002

AV-32360/M/R/Y,AV-32330/M/R/Y,AV-32320/M/R/Y AV-32S36/M/R/Y,AV-32S33/M/R/Y

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal	
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped	
(3)Internal resistance of tester	:DC 20kΩ/V	
(4)Oscilloscope sweeping time	:H	⇒ 20μS/div
	:V	⇒ 5mS/div
	:Others	⇒ Sweeping time is specified
(5)Voltage values	:All DC voltage values	

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board :R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	:[Ω]
K	:[K Ω]
M	:[M Ω]

● Rated allowable power

No indication	:1/ 16 [W]
Others	:As specified

● Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	:[pF]
less than 1	:[μF]

● Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example]:Capacitance value [μF]/withstand voltage[V]

● Type

No indication	:Ceramic capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

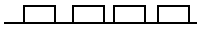
(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply

:B1

:B2 (12V)

:9V

:5V

∗ Respective voltage values are indicated

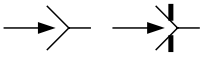
(5)Test point

:Test point

:Only test point display

(6)Connecting method

:Connector

:Wrapping or soldering

:Receptacle

(7)Ground symbol

:LIVE side ground

:ISOLATED(NEUTRAL) side ground

:EARTH ground

:DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND.Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◇ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

May 2002 No. 51951

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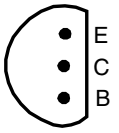
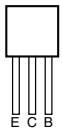
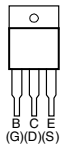
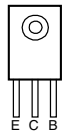
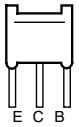
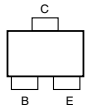
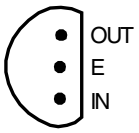
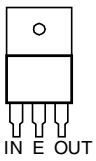
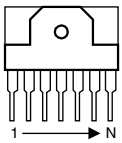
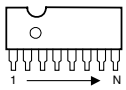
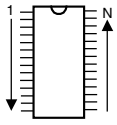
SEMICONDUCTOR SHAPES

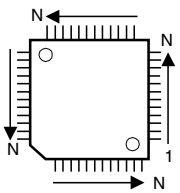
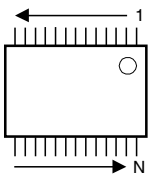
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

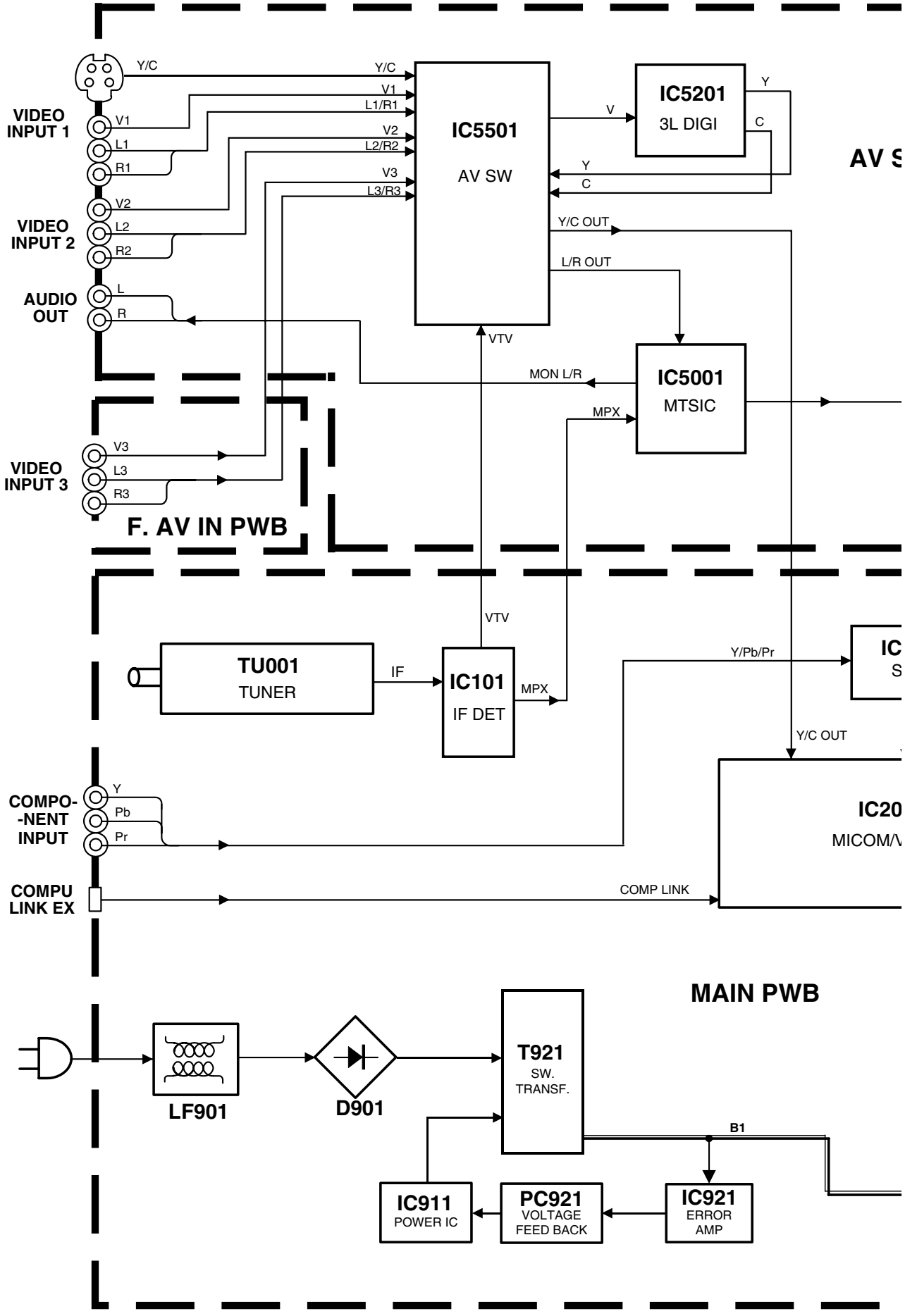
IC

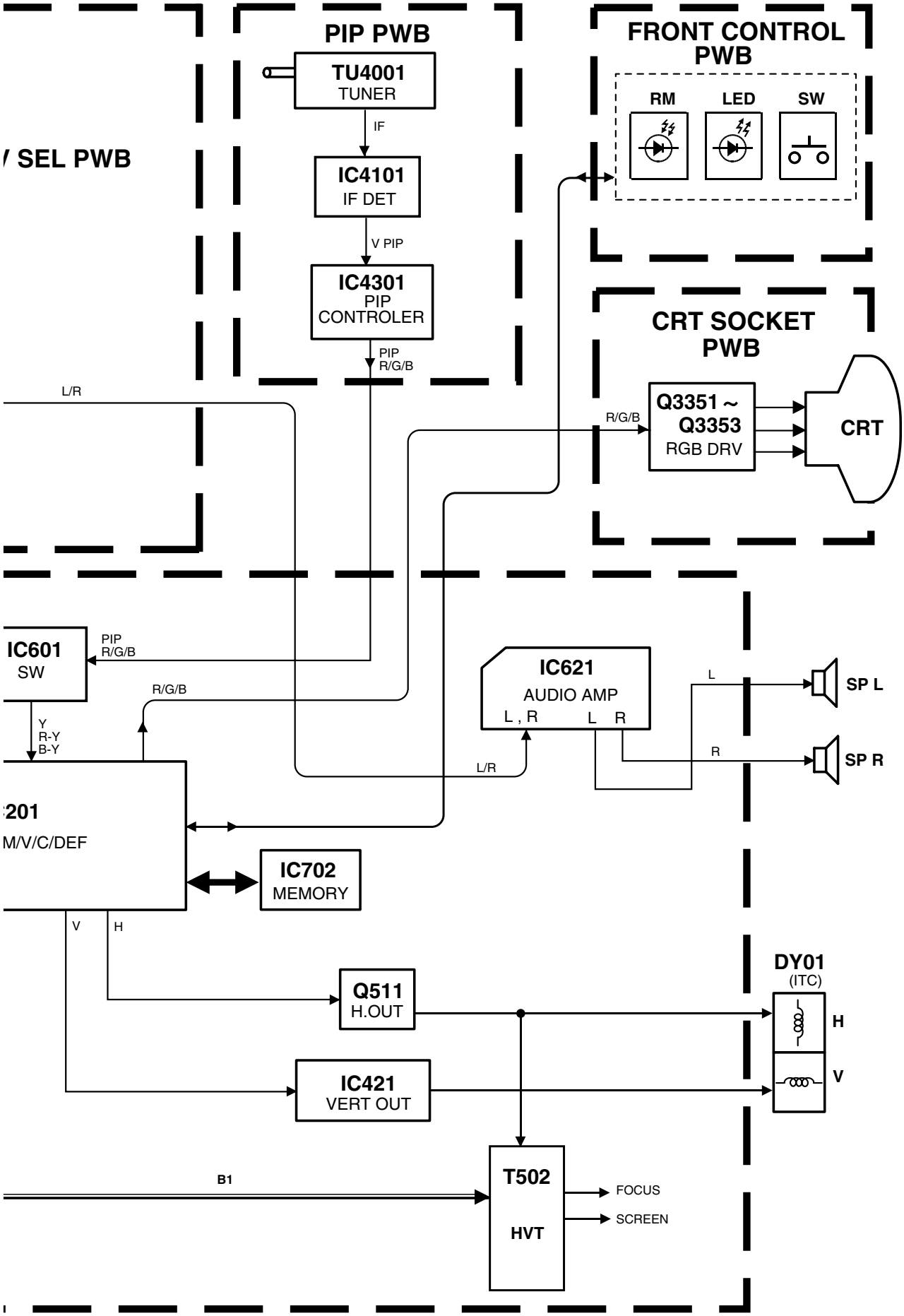
BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

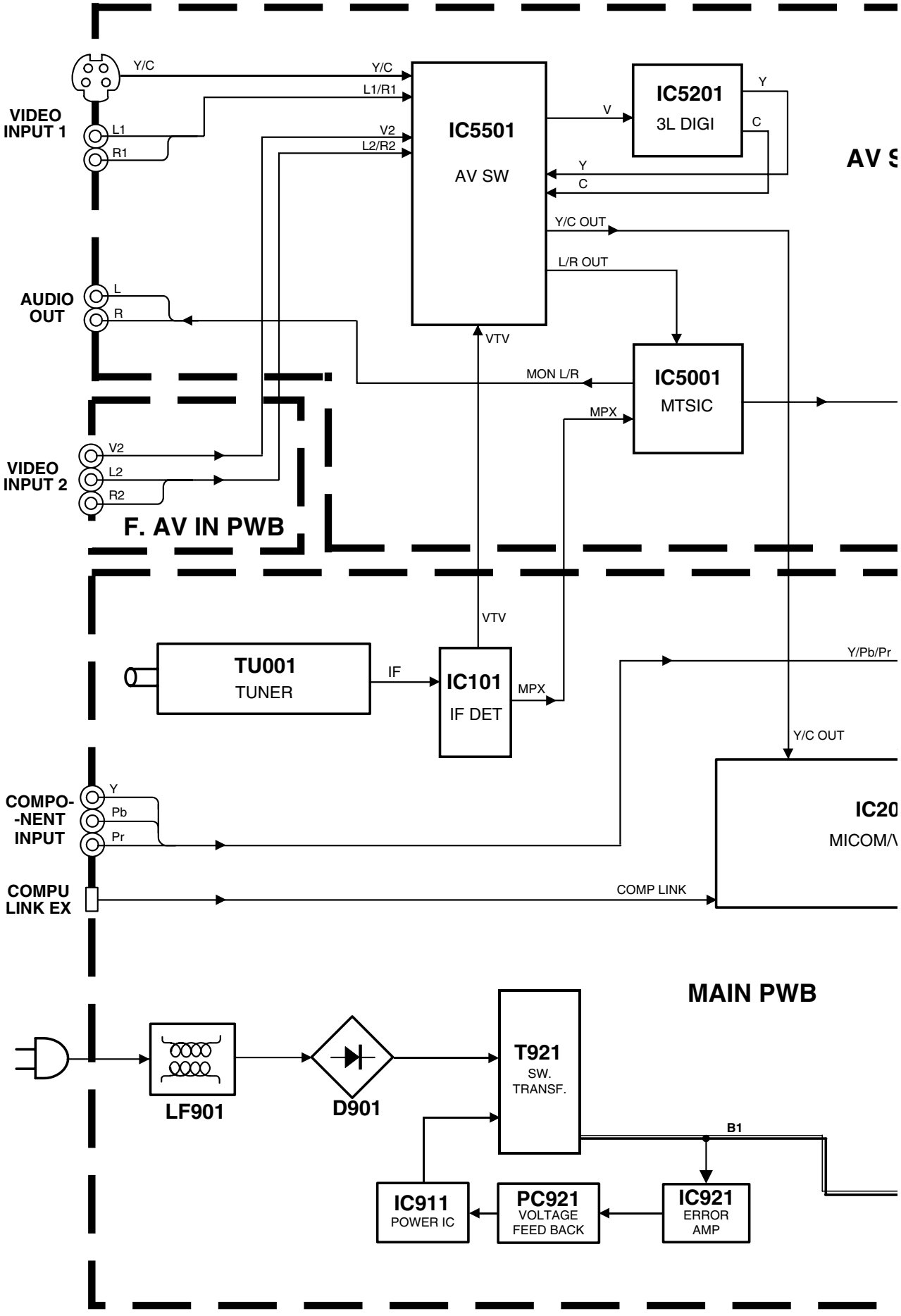
TOP VIEW		
		

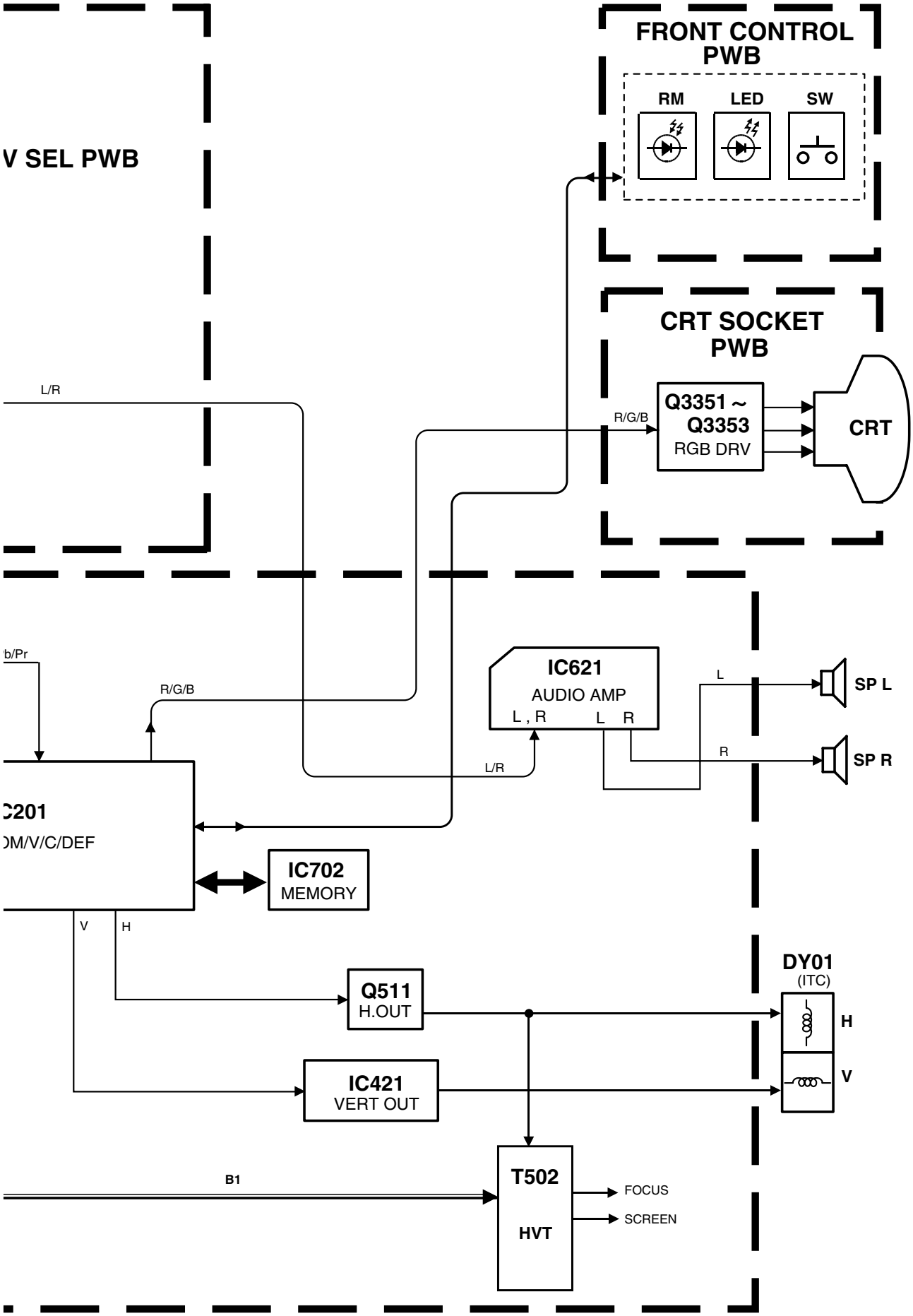
BLOCK DIAGRAM



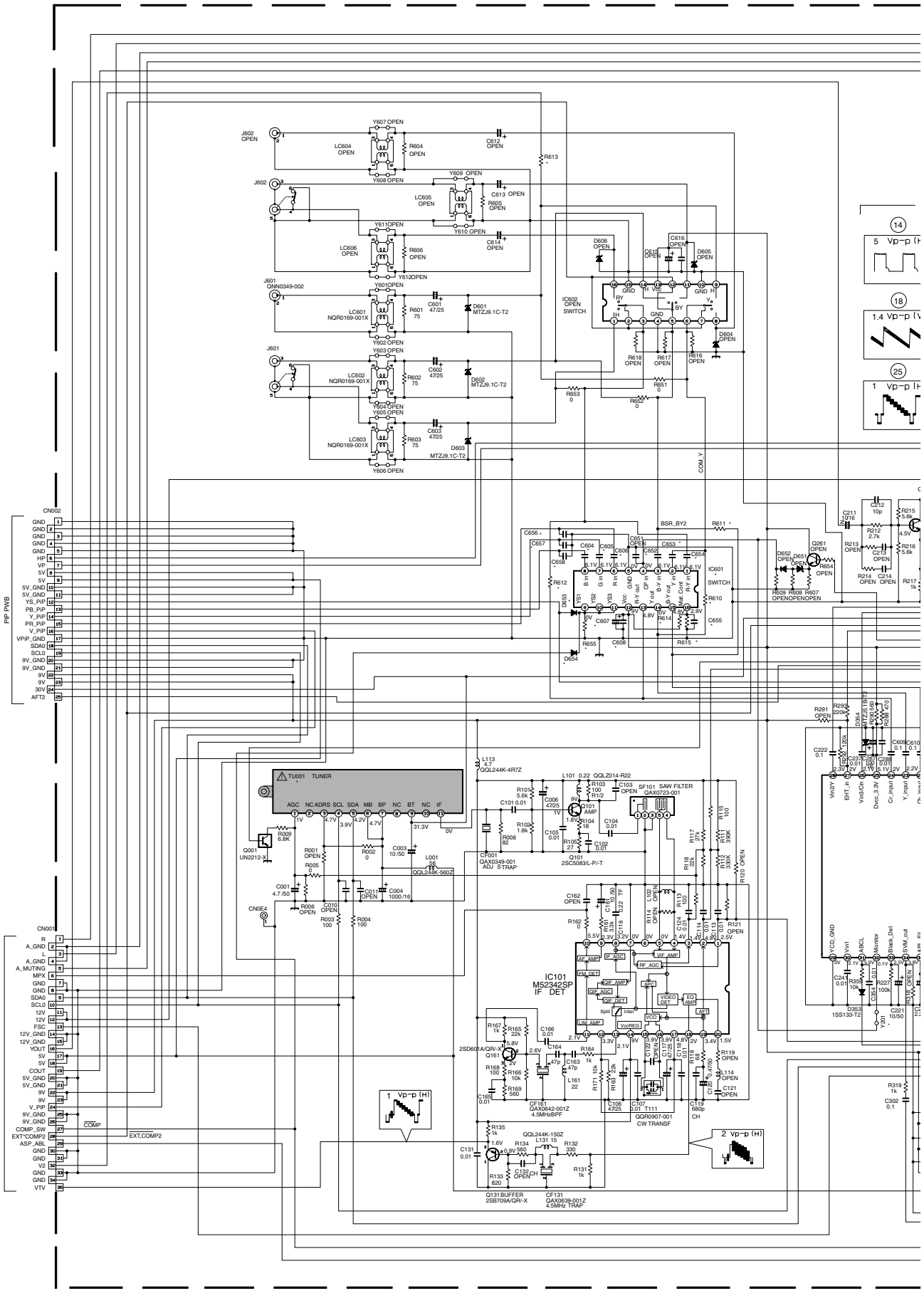

PIP PWB
TU4001
TUNER
IF
IC4101
IF DET
V PIP
IC4301
PIP
CONTROLER
PIP
R/G/B
/ SEL PWB
FRONT CONTROL
PWB
RM
LED
SW
CRT SOCKET
PWB
L/R
R/G/B
Q3351 ~
Q3353
RGB DRV
CRT
IC601
SW
PIP
R/G/B
R/G/B
Y
R-Y
B-Y
IC621
AUDIO AMP
L , R
L R
L
SP L
R
SP R
L/R
:201
M/V/C/DEF
IC702
MEMORY
V
H
DY01
(ITC)
Q511
H.OUT
H
V
IC421
VERT OUT
B1
T502
HVT
FOCUS
SCREEN

BLOCK DIAGRAM




FRONT CONTROL PWB
RM
LED
SW
V SEL PWB
CRT SOCKET PWB
L/R
R/G/B
Q3351 ~ Q3353
RGB DRV
CRT
b/Pr
R/G/B
IC621
AUDIO AMP
L , R
L R
L
R
SP L
SP R
L/R
C201
OM/V/C/DEF
IC702
MEMORY
V
H
DY01
(ITC)
Q511
H.OUT
H
V
IC421
VERT OUT
B1
T502
HVT
FOCUS
SCREEN

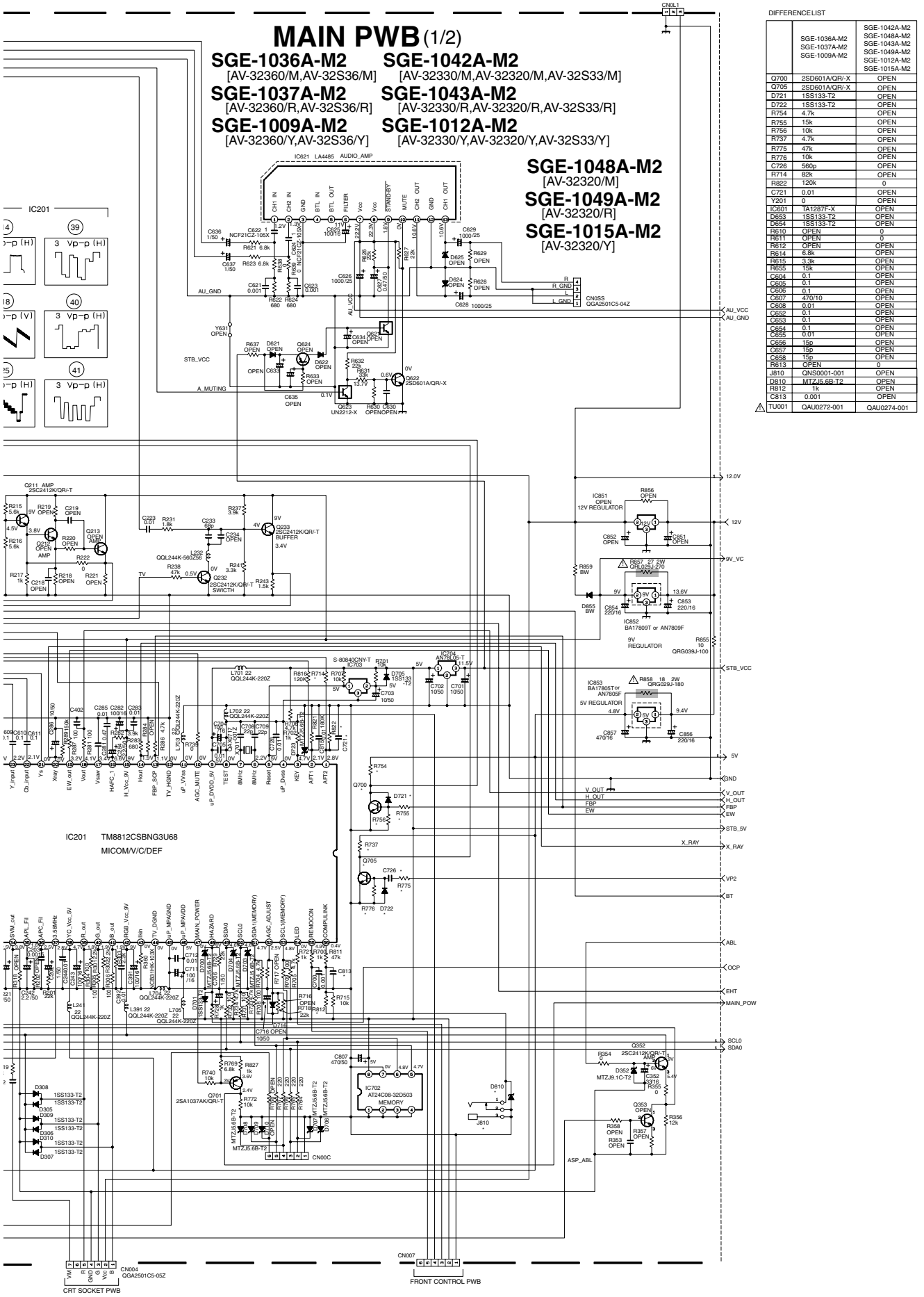
CIRCUIT DIAGRAMS *MAIN PWB CIRCUIT DIAGRAMS* [1/2]



MAIN PWB (1/2)

SGE-1036A-M2 [AV-32360/M,AV-32S36/M]
SGE-1042A-M2 [AV-32330/M,AV-32320/M,AV-32S33/M]
SGE-1037A-M2 [AV-32360/R,AV-32S36/R]
SGE-1043A-M2 [AV-32330/R,AV-32320/R,AV-32S33/R]
SGE-1009A-M2 [AV-32360/Y,AV-32S36/Y]
SGE-1012A-M2 [AV-32330/Y,AV-32320/Y,AV-32S33/Y]

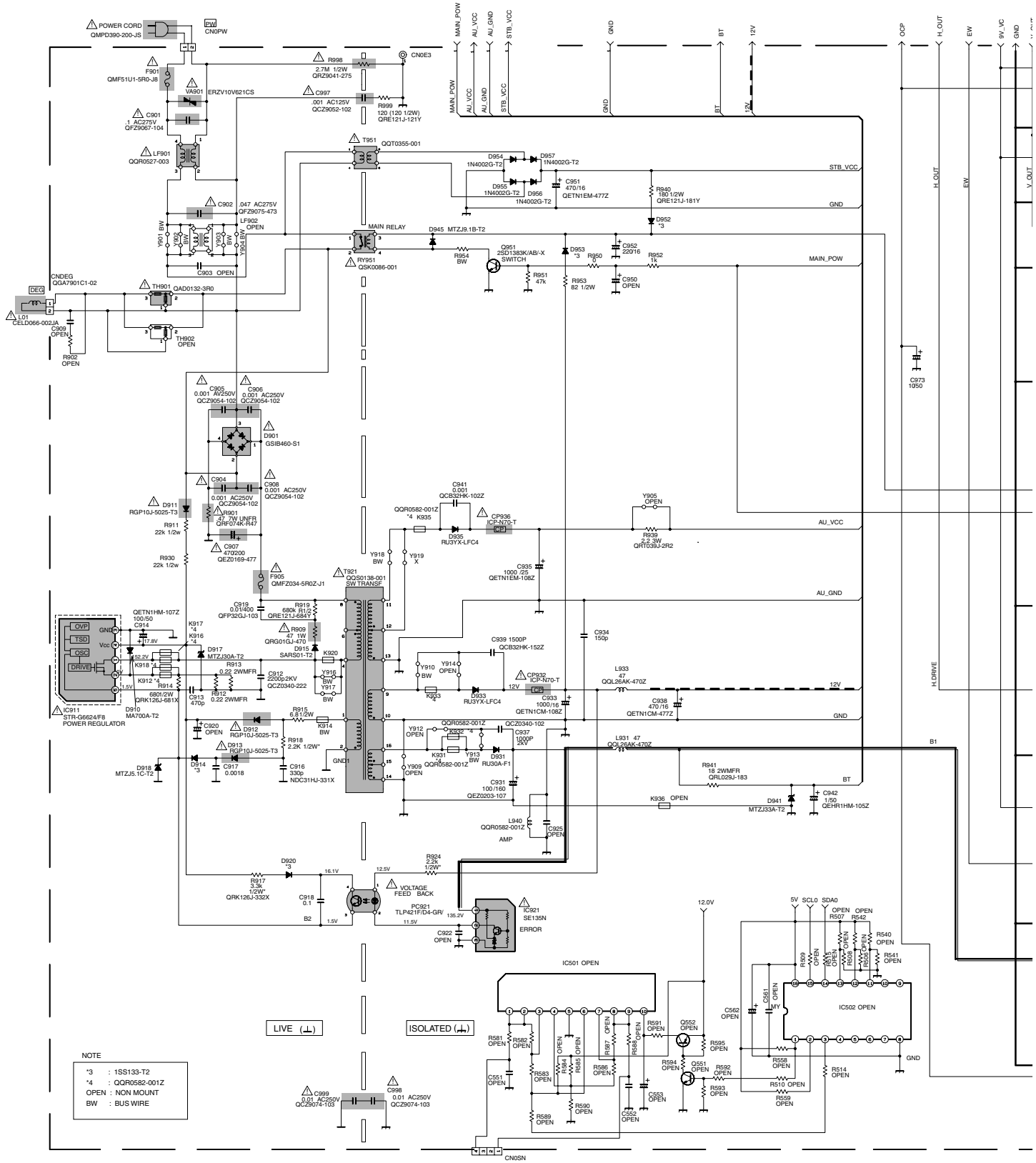
SGE-1048A-M2 [AV-32320/M]
SGE-1049A-M2 [AV-32320/R]
SGE-1015A-M2 [AV-32320/Y]

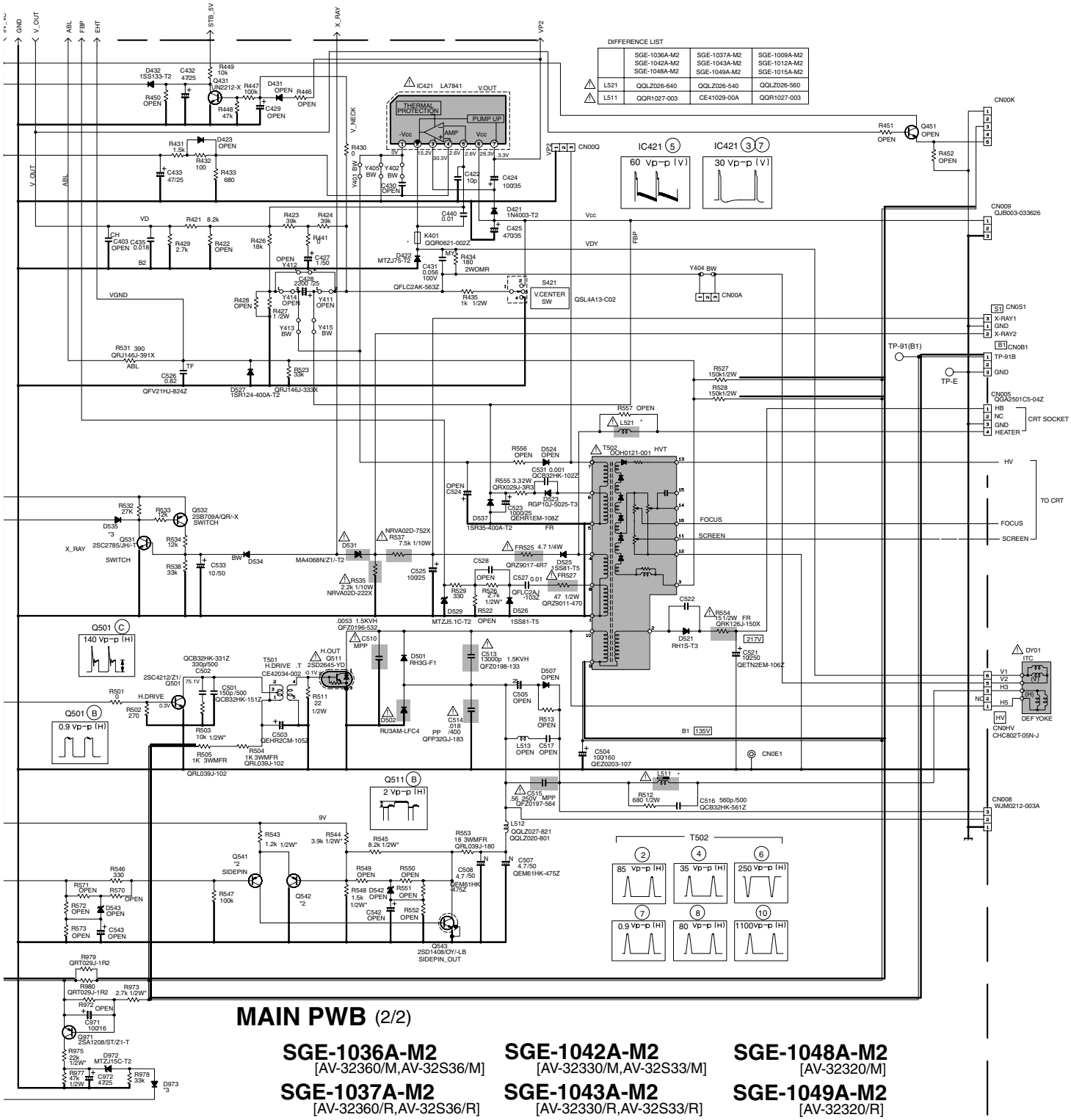


DIFFERENCE LIST

	SGE-1036A-M2 SGE-1037A-M2 SGE-1009A-M2	SGE-1042A-M2 SGE-1048A-M2 SGE-1043A-M2 SGE-1049A-M2 SGE-1012A-M2 SGE-1015A-M2
Q700	2SD601A/QR/-X	OPEN
Q705	2SD601A/QR/-X	OPEN
D721	1SS133-T2	OPEN
D722	1SS133-T2	OPEN
R754	4.7k	OPEN
R755	15k	OPEN
R756	10k	OPEN
R737	4.7k	OPEN
R775	47k	OPEN
R776	10k	OPEN
C726	560p	OPEN
R714	82k	OPEN
R822	120k	0
C721	0.01	OPEN
Y201	0	OPEN
IC601	TA1287F-X	OPEN
D653	1SS133-T2	OPEN
D654	1SS133-T2	OPEN
R610	OPEN	0
R611	OPEN	0
R612	OPEN	OPEN
R614	6.8k	OPEN
R615	3.3k	OPEN
R655	15k	OPEN
C604	0.1	OPEN
C605	0.1	OPEN
C606	0.1	OPEN
C607	470/10	OPEN
C608	0.01	OPEN
C652	0.1	OPEN
C653	0.1	OPEN
C654	0.1	OPEN
C655	0.01	OPEN
C656	15p	OPEN
C657	15p	OPEN
C658	15p	OPEN
R613	OPEN	0
J810	QNS0001-001	OPEN
D810	MTZJ5.6B-T2	OPEN
R812	1k	OPEN
C813	0.001	OPEN
⚠ TU001	QAU0272-001	QAU0274-001

MAIN PWB CIRCUIT DIAGRAM [2/2]

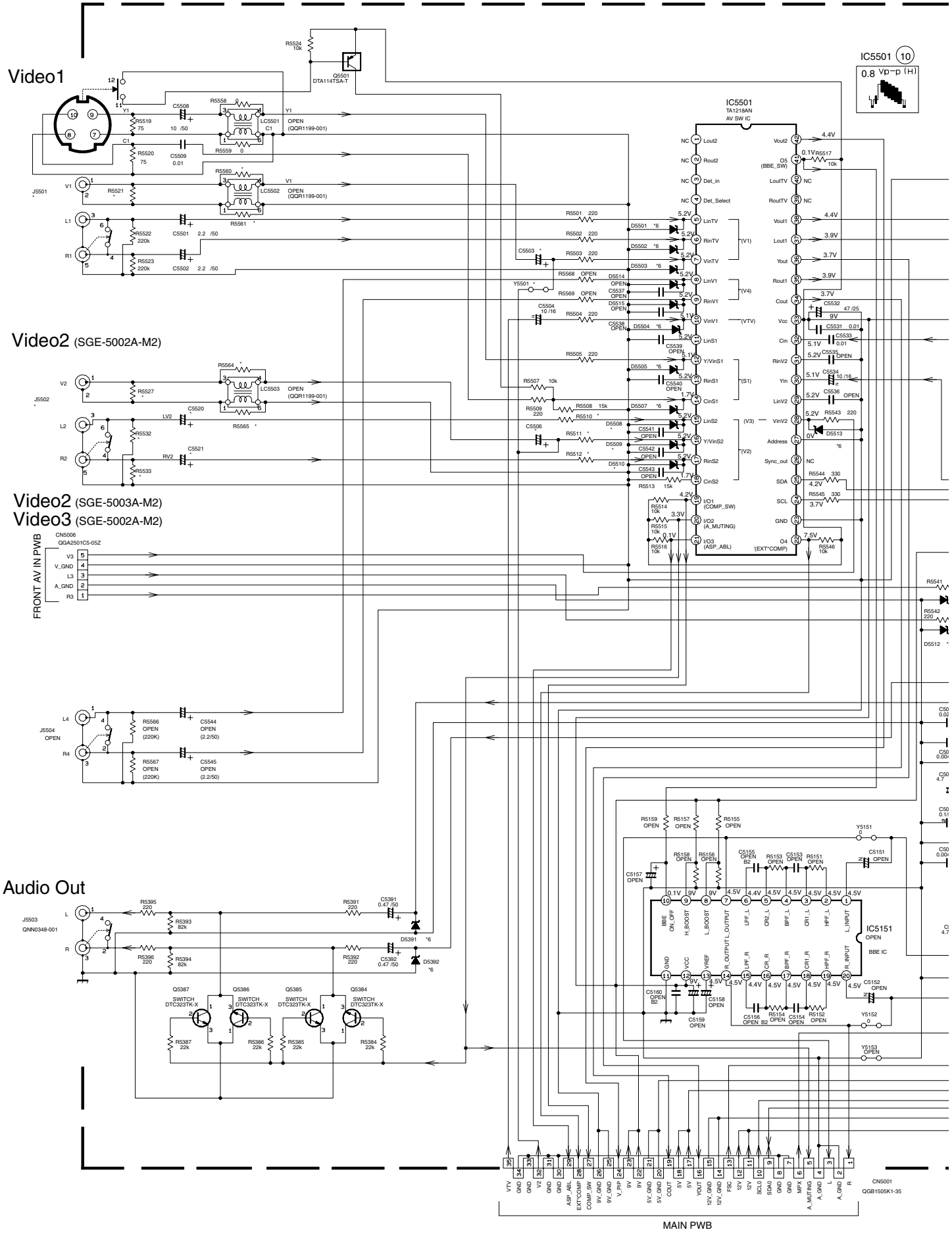


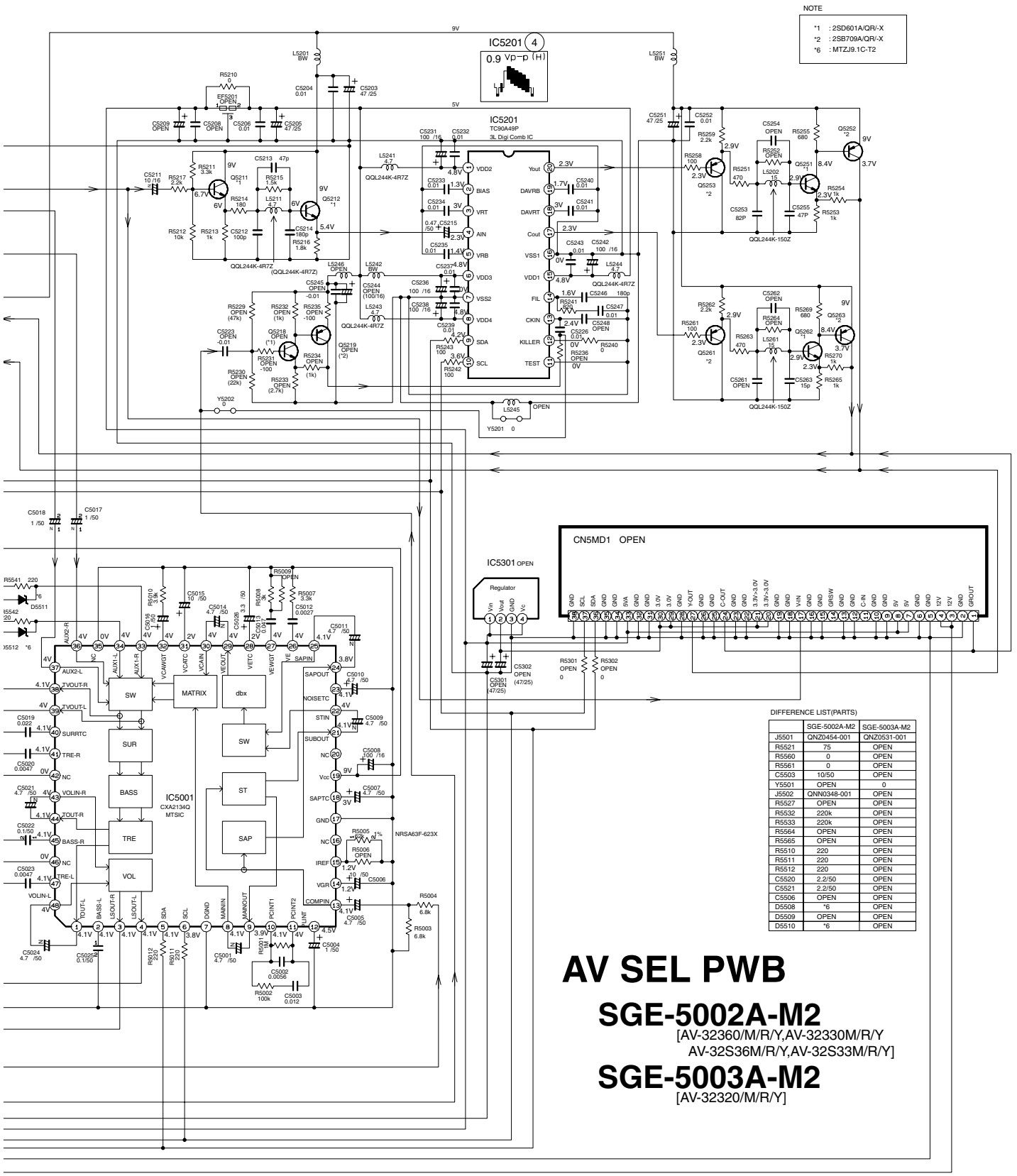


MAIN PWB (2/2)

SGE-1036A-M2 [AV-32360/M,AV-32S36/M]
SGE-1037A-M2 [AV-32360/R,AV-32S36/R]
SGE-1009A-M2 [AV-32360/Y,AV-32S36/Y]
SGE-1042A-M2 [AV-32330/M,AV-32S33/M]
SGE-1043A-M2 [AV-32330/R,AV-32S33/R]
SGE-1012A-M2 [AV-32330/Y,AV-32S33/Y]
SGE-1048A-M2 [AV-32320/M]
SGE-1049A-M2 [AV-32320/R]
SGE-1015A-M2 [AV-32320/Y]

AV SEL PWB CIRCUIT DIAGRAM





DIFFERENCE LIST(PARTS)

	SGE-5002A-M2	SGE-5003A-M2
J5501	QNZ0454-001	QNZ0531-001
R5521	75	OPEN
R5560	0	OPEN
R5561	0	OPEN
C5503	10/50	OPEN
Y5501	OPEN	0
J5502	QNN0348-001	OPEN
R5527	OPEN	OPEN
R5532	220k	OPEN
R5533	220k	OPEN
R5564	OPEN	OPEN
R5565	OPEN	OPEN
R5510	220	OPEN
R5511	220	OPEN
R5512	220	OPEN
C5520	2.2/50	OPEN
C5521	2.2/50	OPEN
C5506	OPEN	OPEN
D5508	*6	OPEN
D5509	OPEN	OPEN
D5510	*6	OPEN

AV SEL PWB

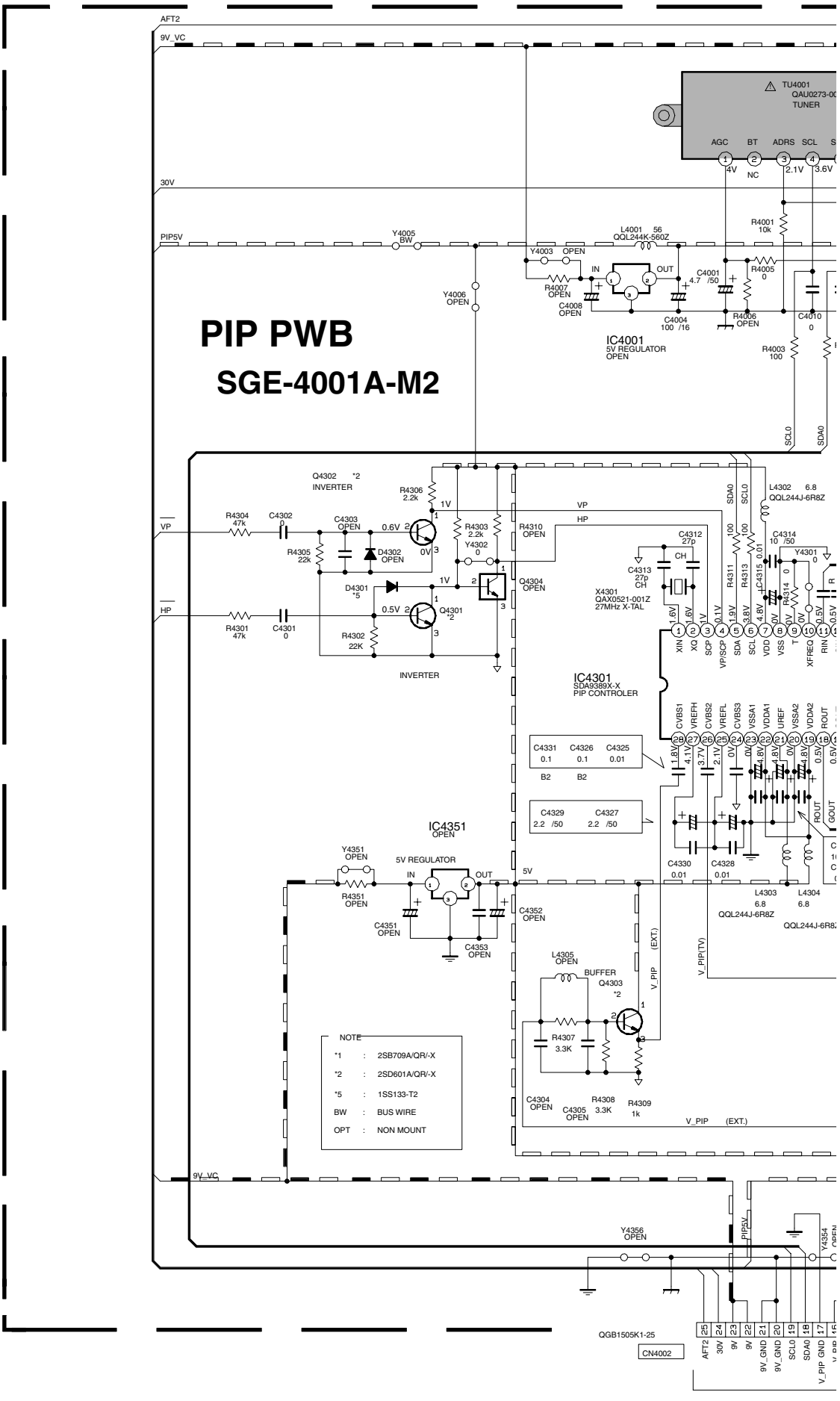
SGE-5002A-M2

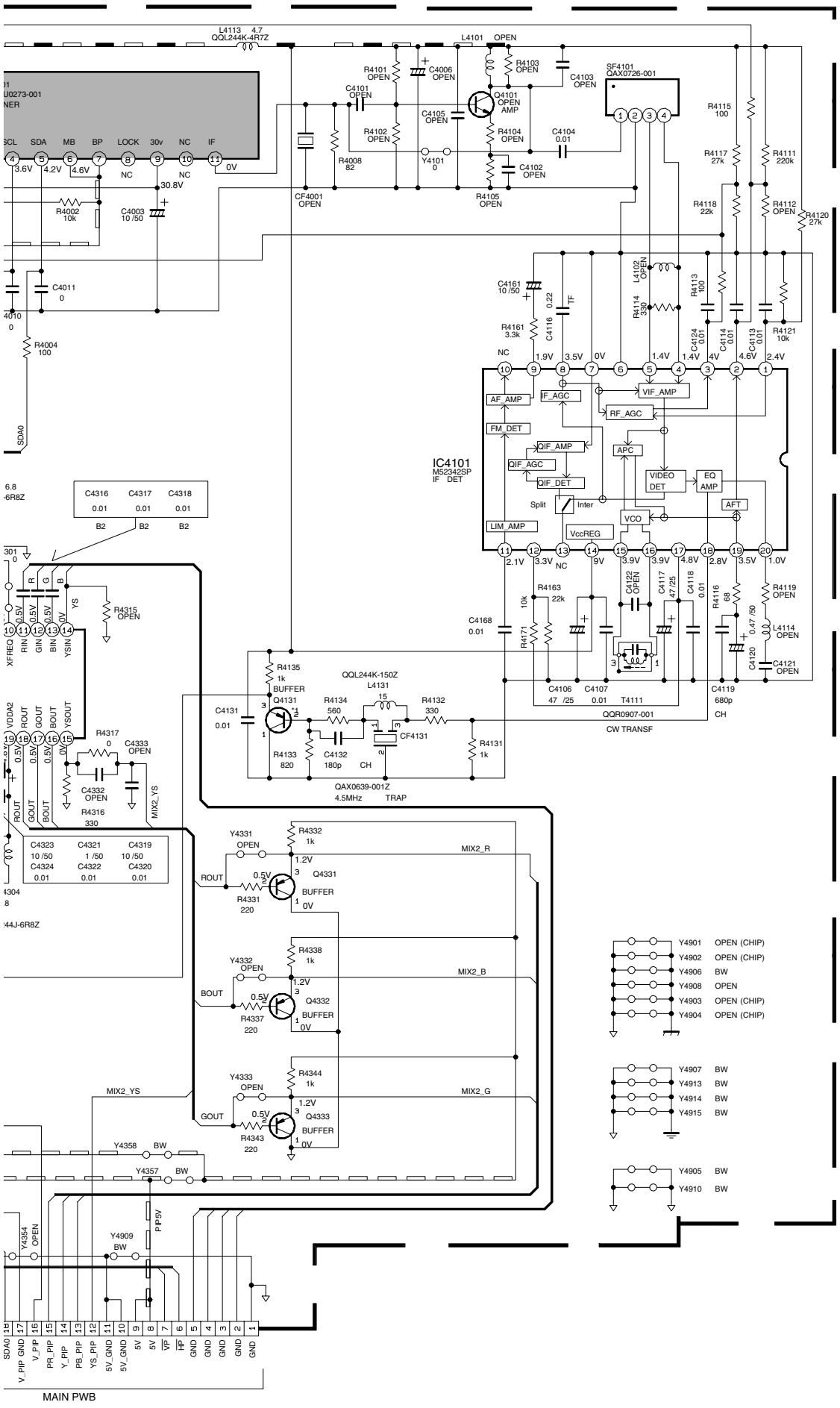
[AV-32360/M/R/Y,AV-32330M/R/Y
AV-32S36M/R/Y,AV-32S33M/R/Y]

SGE-5003A-M2

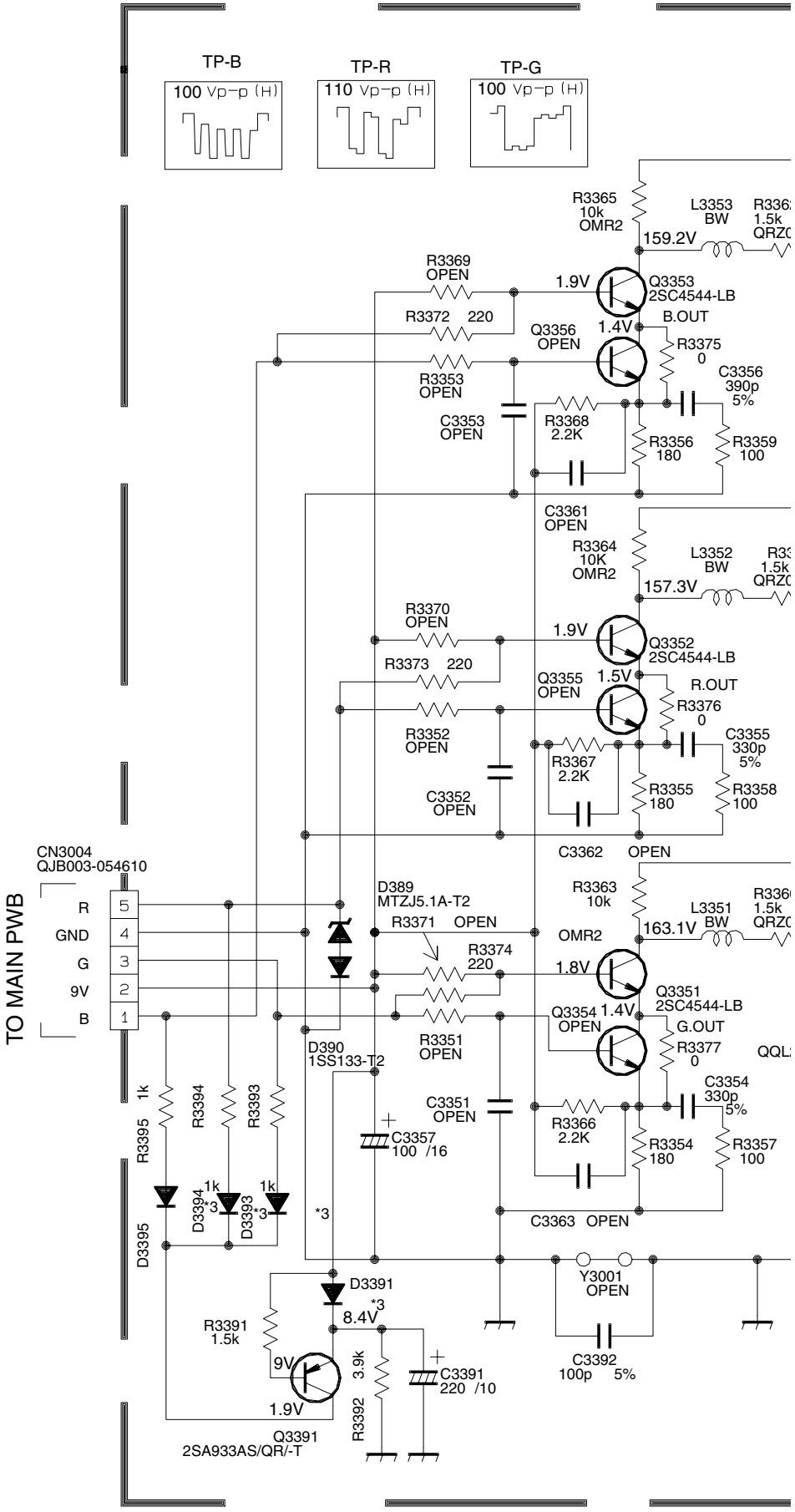
[AV-32320/M/R/Y]

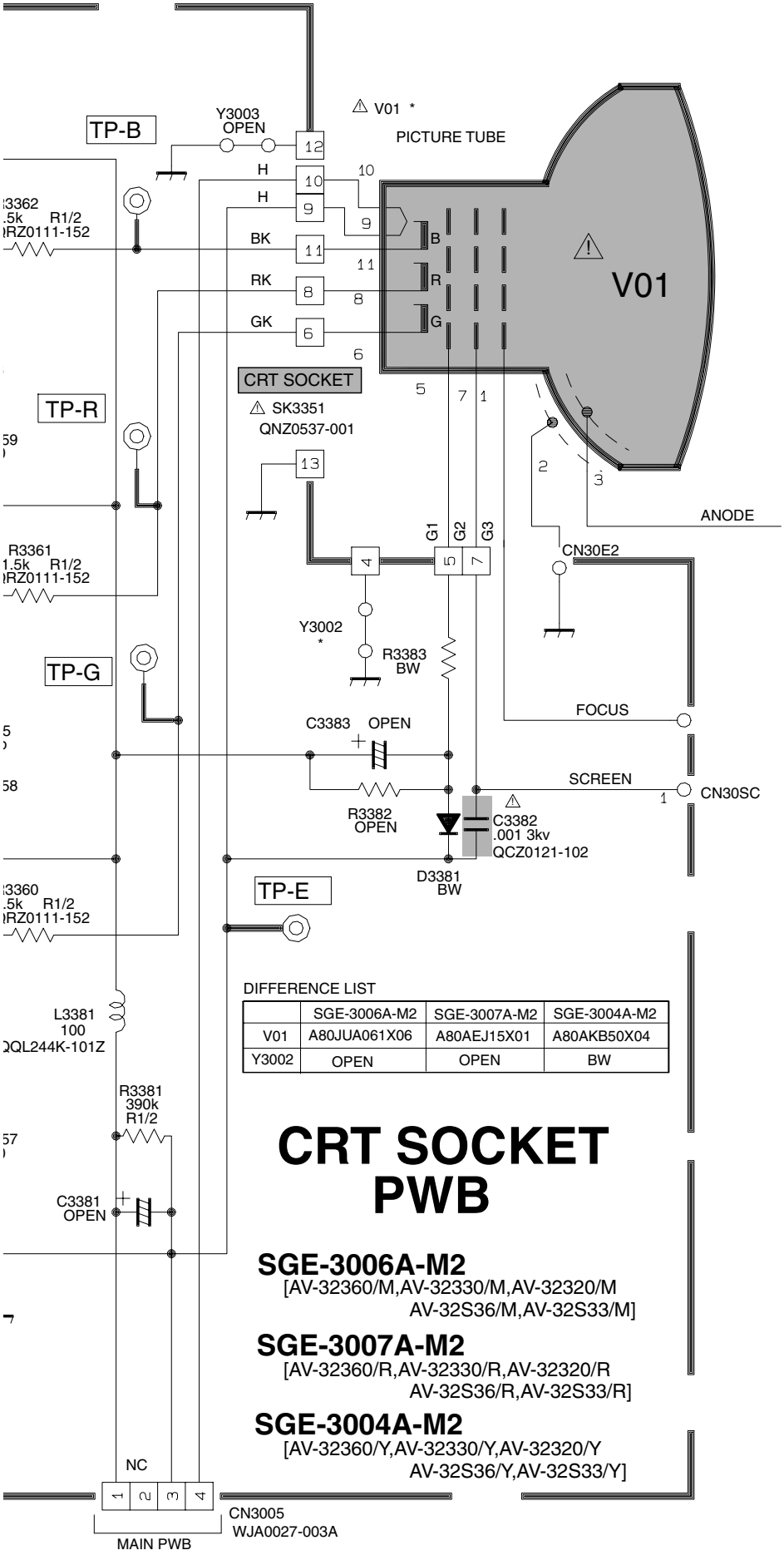
PIP PWB CIRCUIT DIAGRAM




IC4101
M52342SP
IF DET
QAX0639-001Z
4.5MHz TRAP
QQR0907-001
CW TRANSF
MAIN PWB
MIX2_R
MIX2_B
MIX2_G
MIX2_YS
SCL SDA MB BP LOCK 30v NC IF
AF_AMP
IF_AGC
VIF_AMP
RF_AGC
FM_DET
QIF_AMP
QIF_AGC
QIF_DET
APC
VIDEO DET
EQ AMP
AFT
VCO
VccREG
LIM_AMP
Split
Inter
BUFFER
Q4101 OPEN AMP
SF4101 QAX0726-001
Y4901 OPEN (CHIP)
Y4902 OPEN (CHIP)
Y4906 BW
Y4908 OPEN
Y4903 OPEN (CHIP)
Y4904 OPEN (CHIP)
Y4907 BW
Y4913 BW
Y4914 BW
Y4915 BW
Y4905 BW
Y4910 BW
V_PIP GND
V_PIP
PR_PIP
Y_PIP
PB_PIP
YS_PIP
5V_GND
5V_GND
5V
5V
VP
HP
GND
GND
GND
GND
GND

CRT SOCKET PWB CIRCUIT DIAGRAM





DIFFERENCE LIST

	SGE-3006A-M2	SGE-3007A-M2	SGE-3004A-M2
V01	A80JUA061X06	A80AEJ15X01	A80AKB50X04
Y3002	OPEN	OPEN	BW

CRT SOCKET PWB

SGE-3006A-M2

[AV-32360/M,AV-32330/M,AV-32320/M
AV-32S36/M,AV-32S33/M]

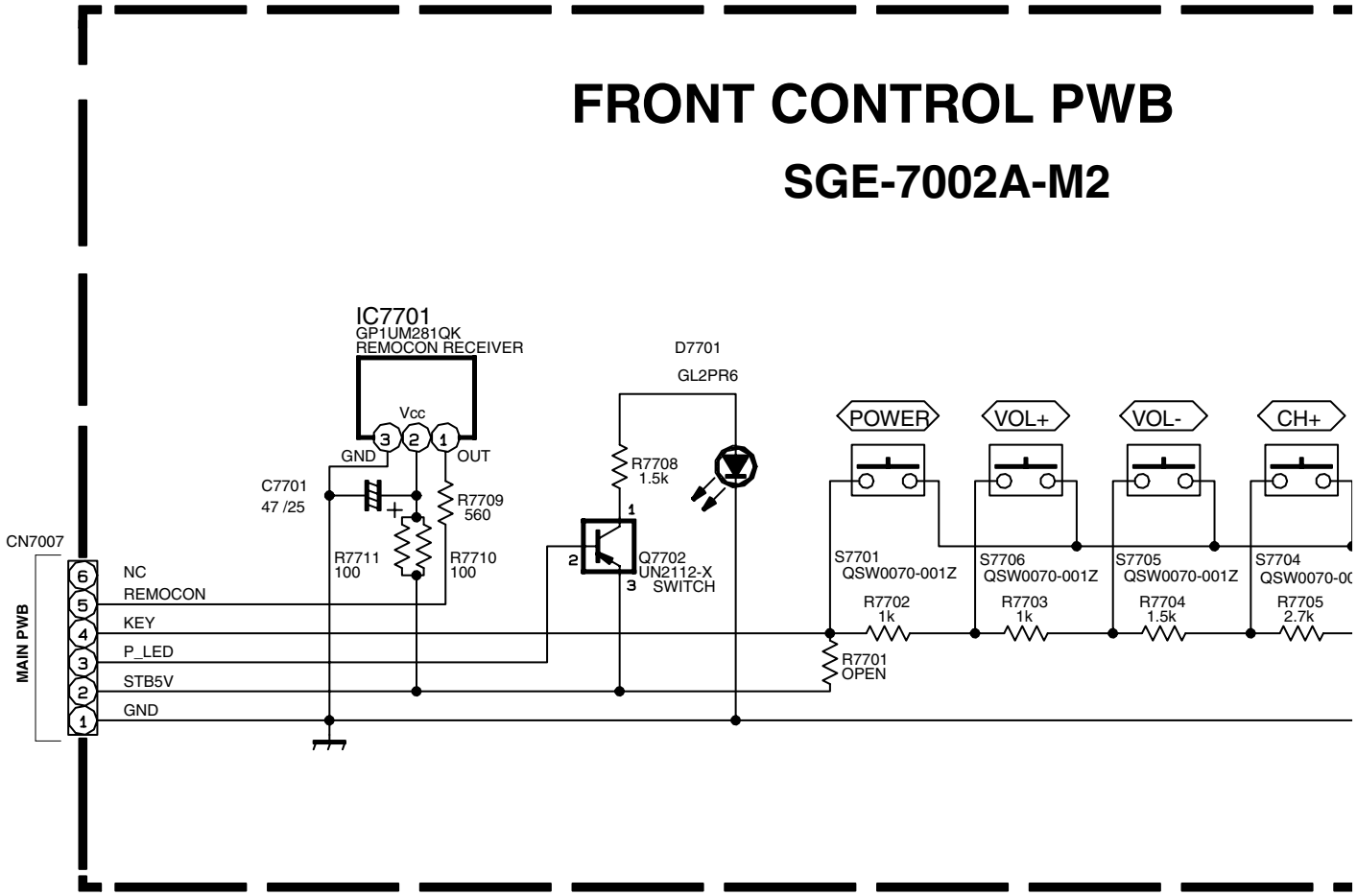
SGE-3007A-M2

[AV-32360/R,AV-32330/R,AV-32320/R
AV-32S36/R,AV-32S33/R]

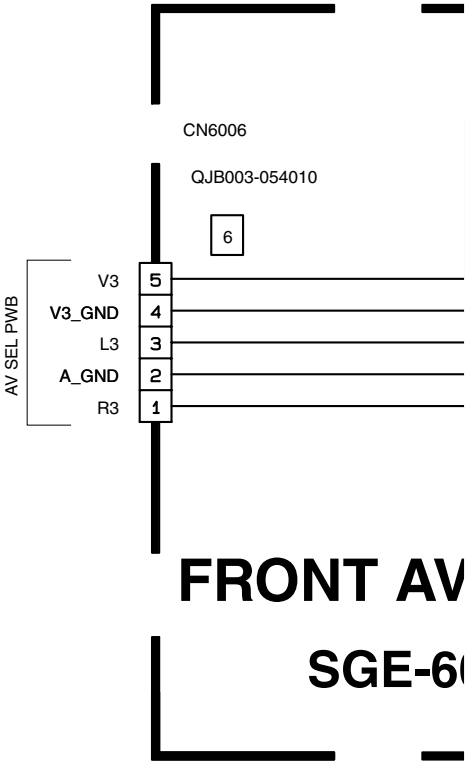
SGE-3004A-M2

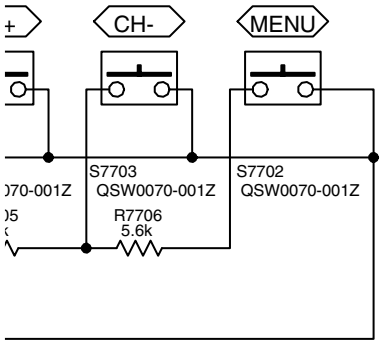
[AV-32360/Y,AV-32330/Y,AV-32320/Y
AV-32S36/Y,AV-32S33/Y]

FRONT CONTROLPWB CIRCUIT DIAGRAM

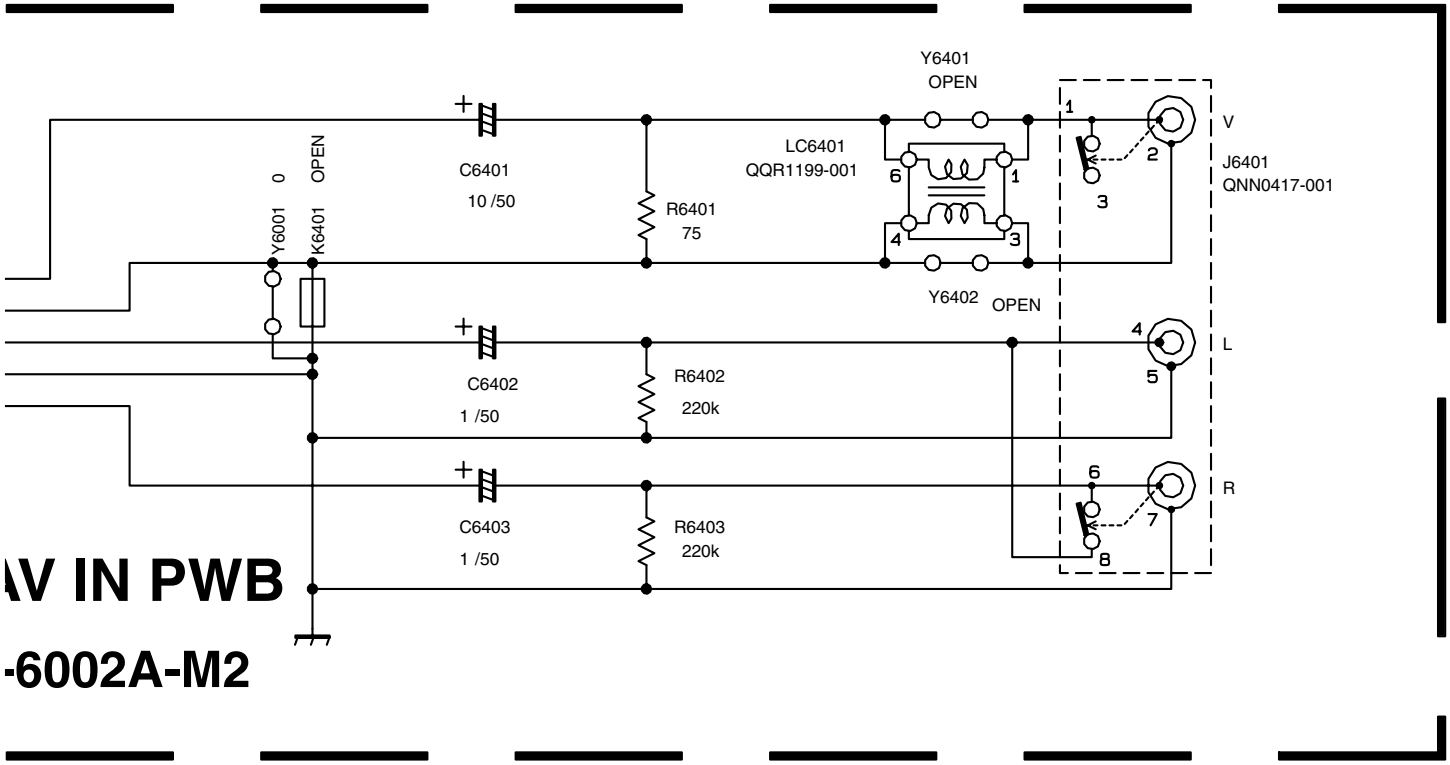


FRONT AV INPWB CIRCUIT DIAGR





AGRAM

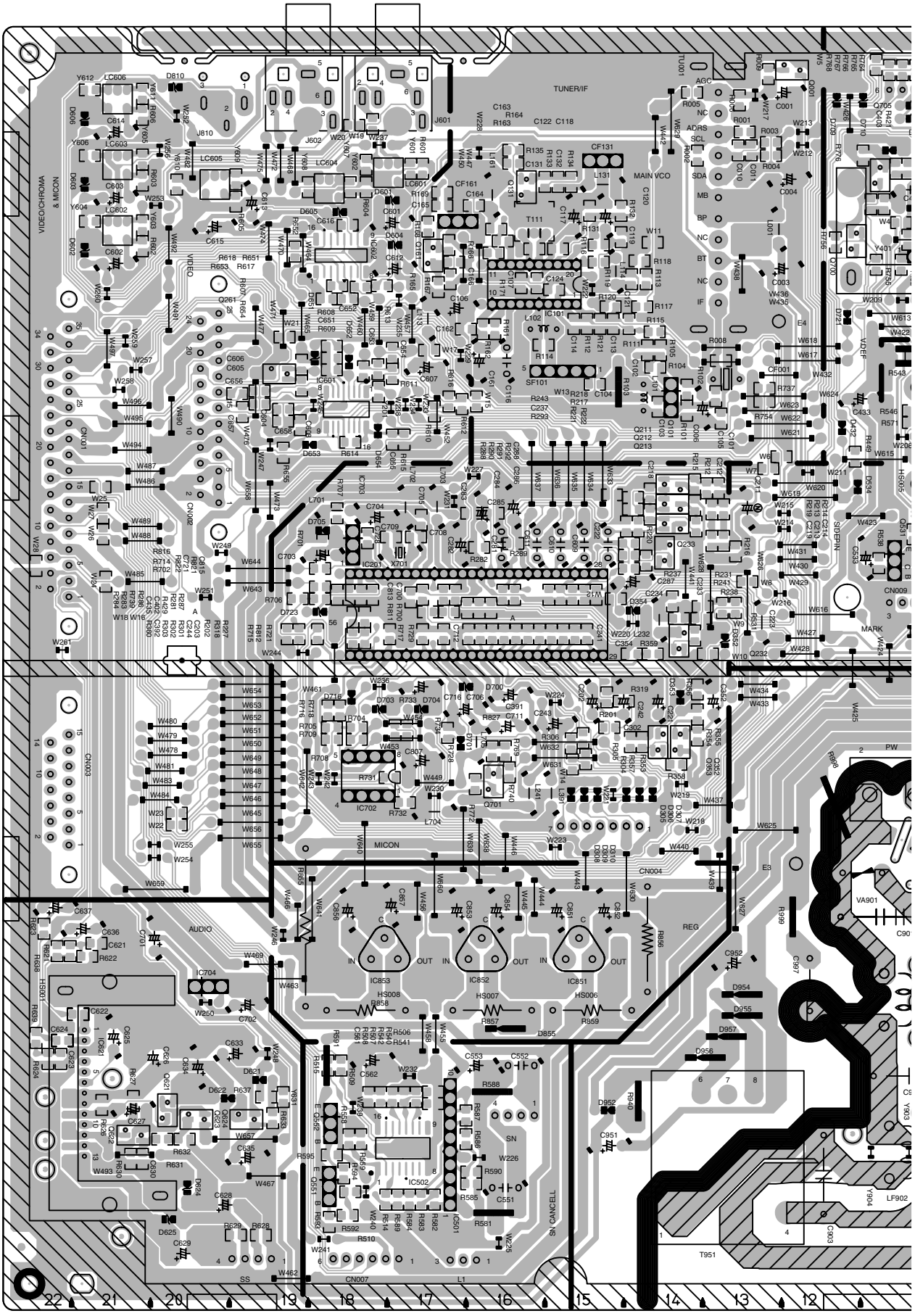


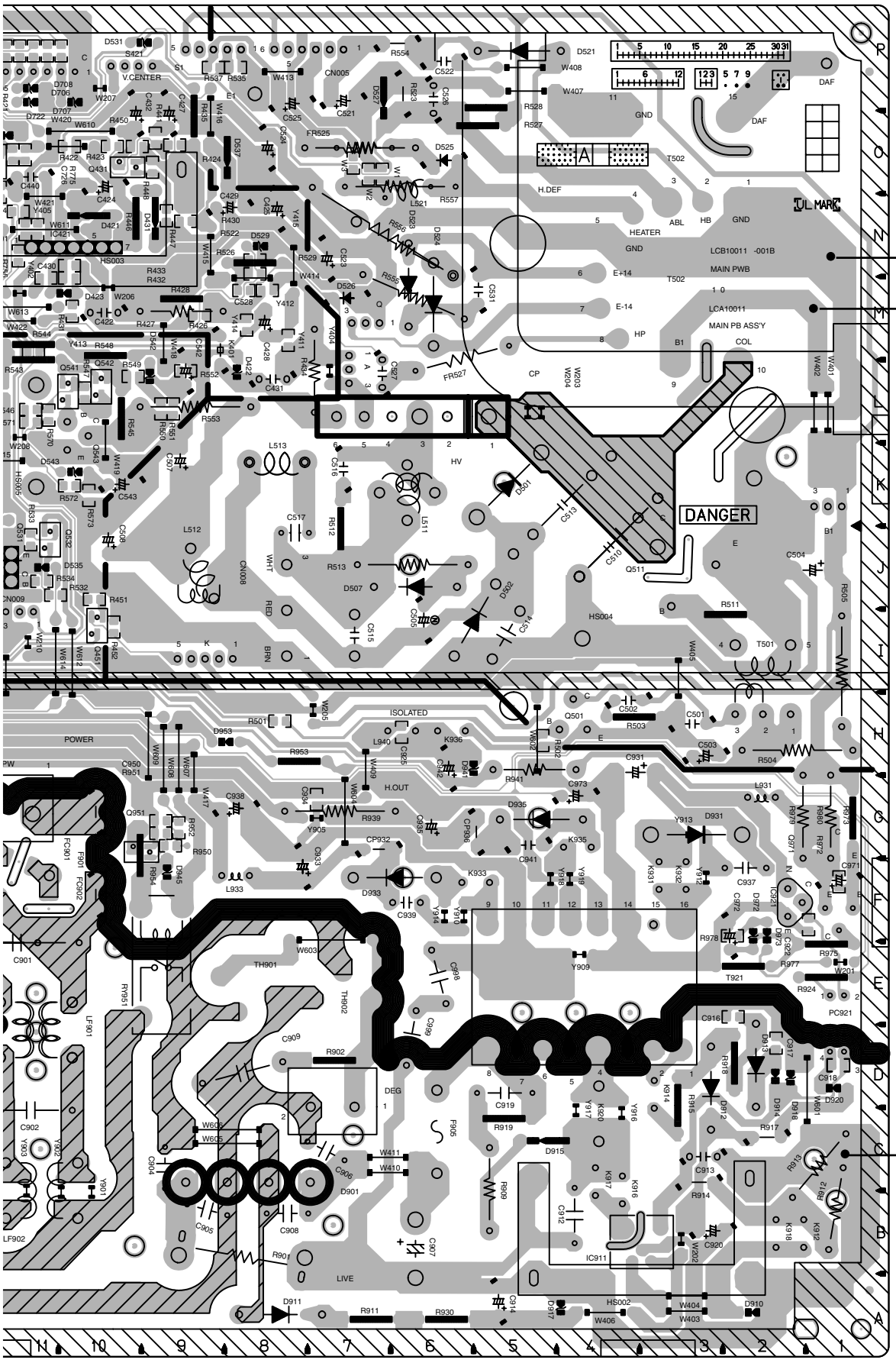
AV IN PWB

-6002A-M2

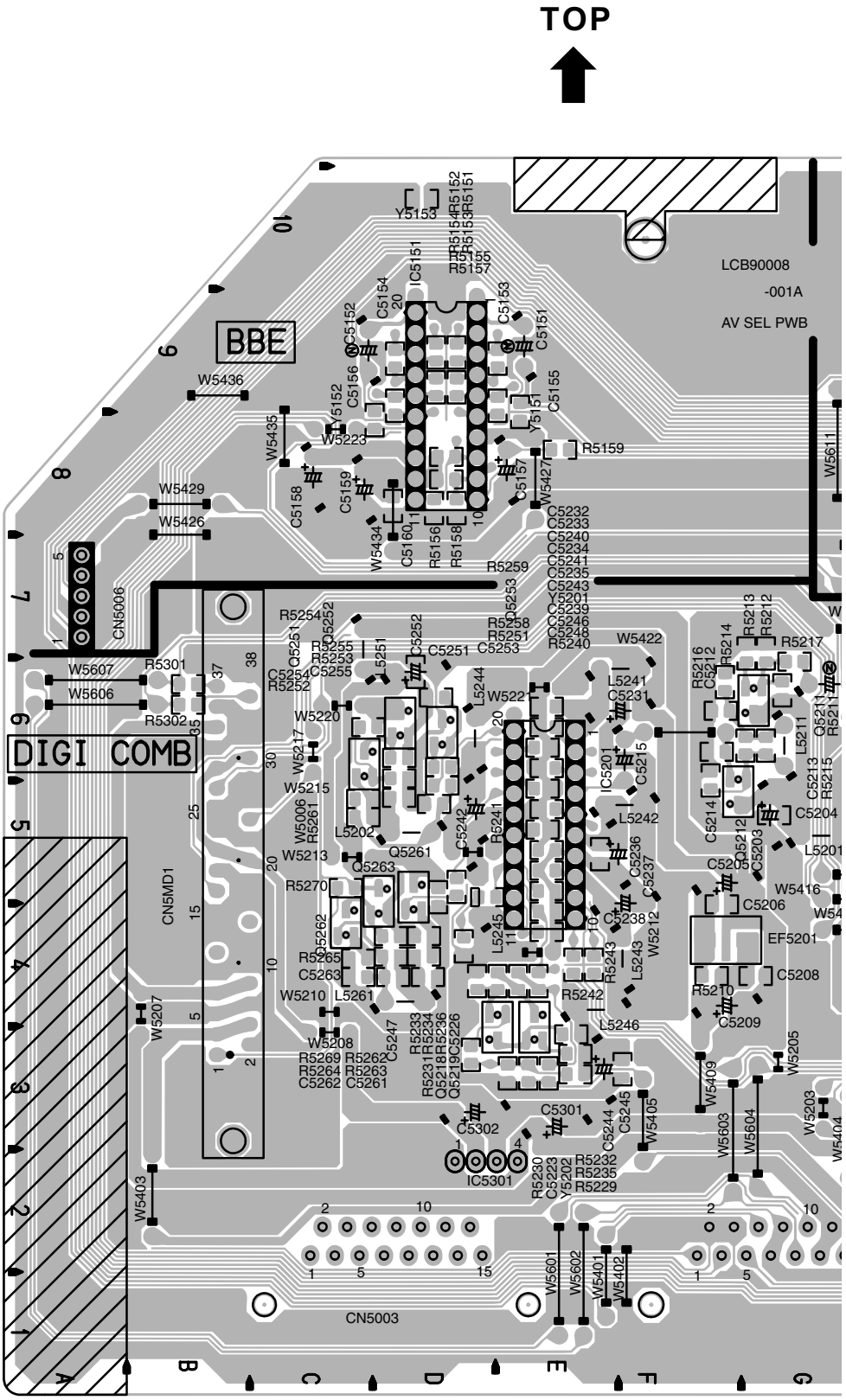
PATTERN DIAGRAMS *MAIN PWB PATTERN*

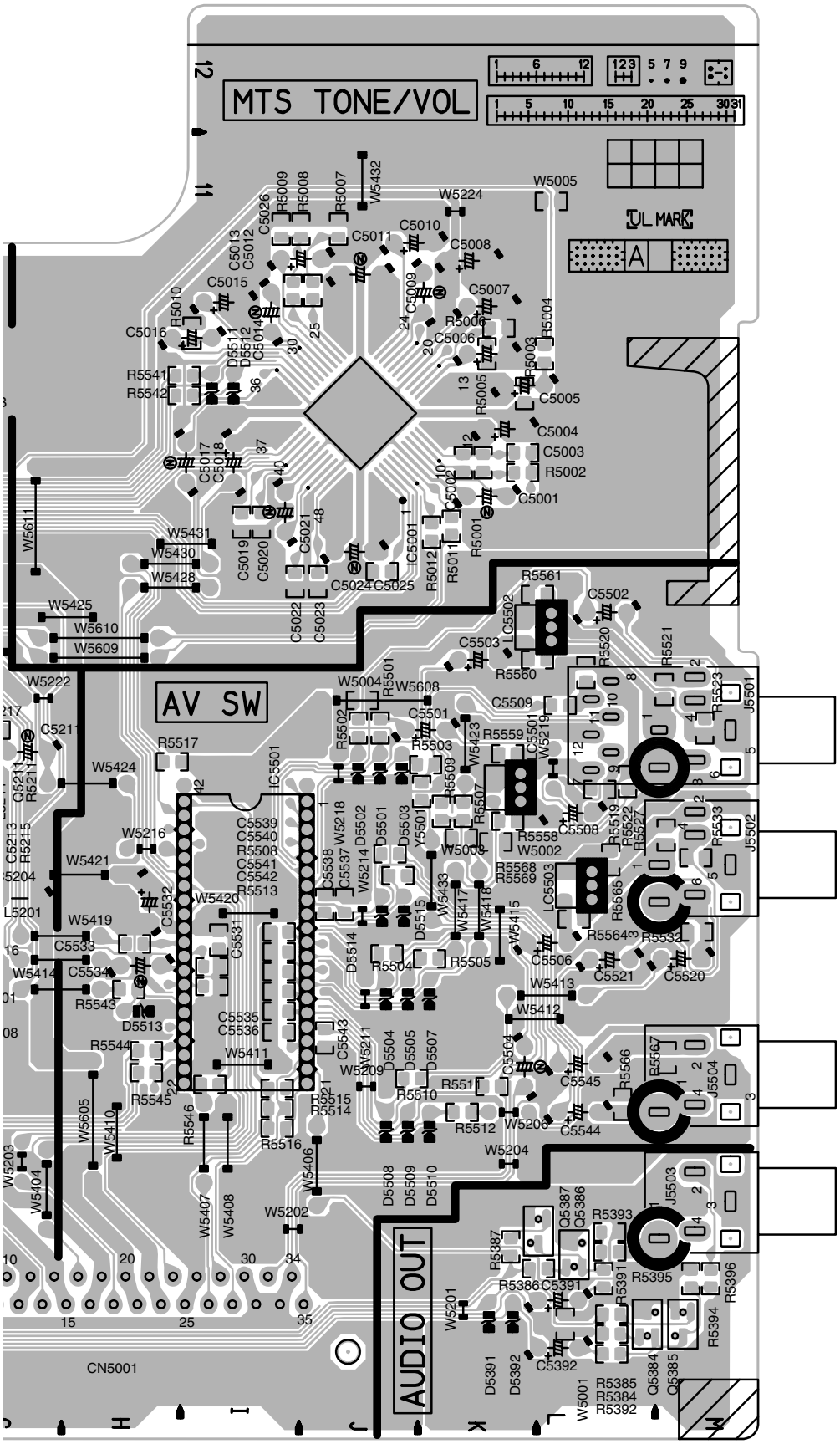
FRONT



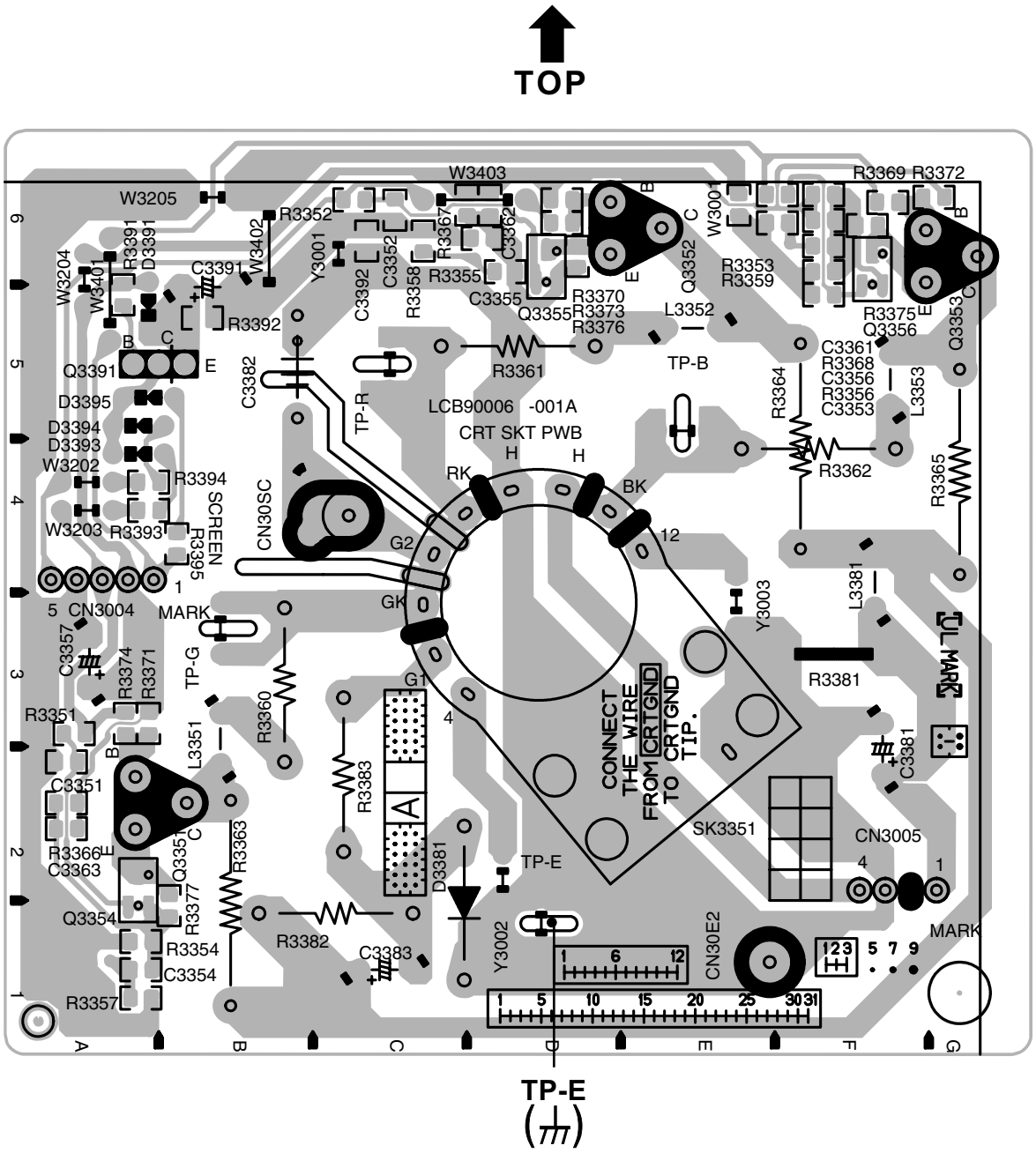

TP-E
TP-91
(B1)
(⊥)
DANGER
MAIN PWB
LCB10011 -001B
LCA10011
MAIN PB ASS'Y
HEATER
H.DEF
ISOLATED
POWER
H.OUT
HV
DEG
LIVE
CP
COL
HP
E-14
E+14
ABL
HB
GND
DAF
V.CENTER

AV SEL PWB PATTERN

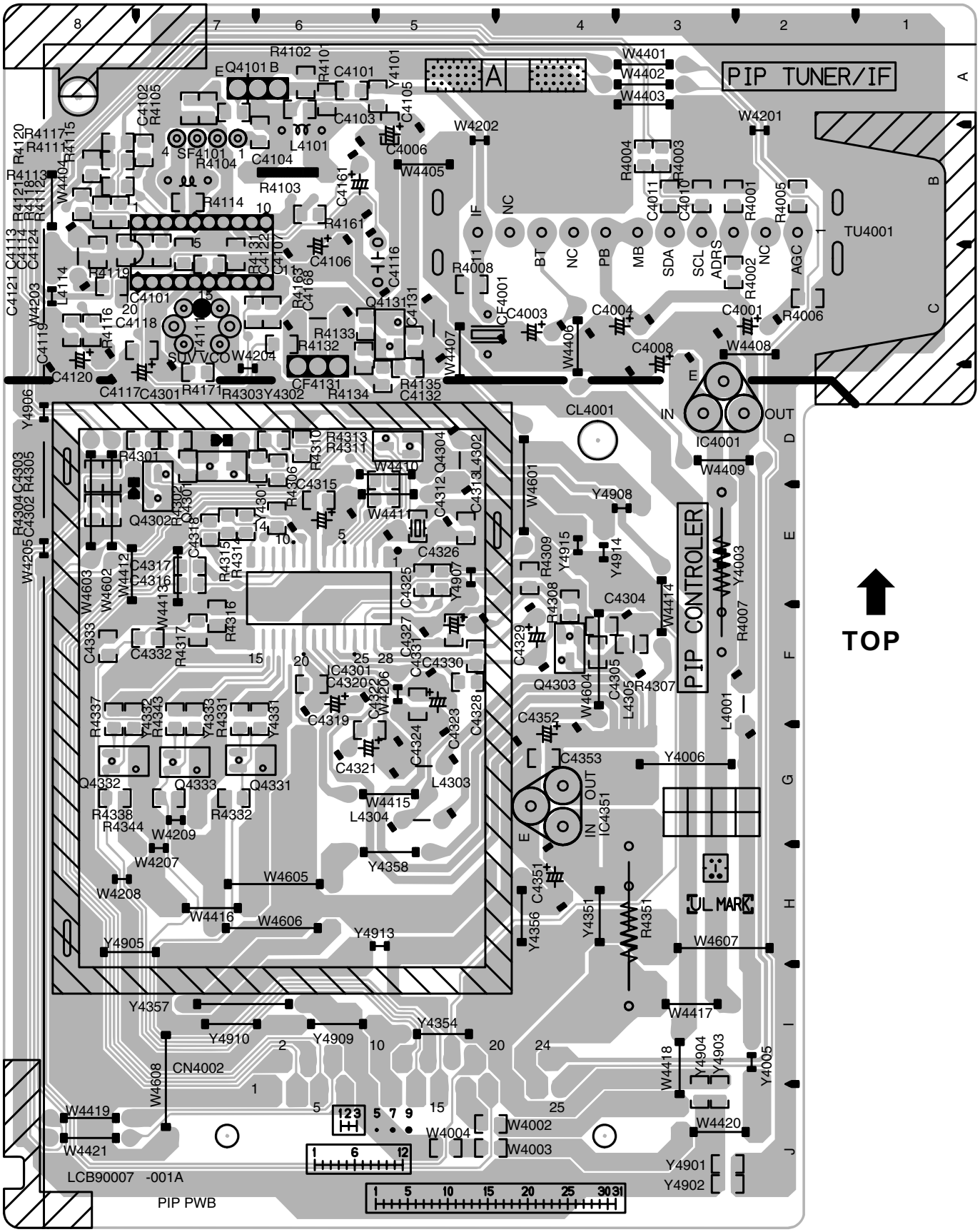

TOP
LCB90008
-001A
AV SEL PWB
BBE
DIGI COMB
CN5006
CN5MD1
CN5003
IC5151
IC5201
IC5301
EF5201
Y5153
Y5152
Y5151
Y5201
Y5202
W5436
W5435
W5223
W5429
W5426
W5434
W5427
W5611
W5607
W5606
W5301
W5302
W5220
W5217
W5215
W5006
W5213
W5207
W5208
W5210
W5212
W5422
W5416
W5409
W5405
W5603
W5604
W5205
W5203
W5404
W5403
W5601
W5602
W5401
W5402
R5159
R5259
R5254
R5255
R5253
R5252
R5258
R5251
R5240
R5213
R5212
R5214
R5217
R5216
R5211
R5215
R5204
R5201
R5270
R5265
R5263
R5269
R5262
R5264
R5263
R5261
R5231
R5234
R5236
R5218
R5219
R5226
R5242
R5243
R5210
R5209
R5205
R5230
R5232
R5235
R5229
C5154
C5153
C5152
C5151
C5155
C5156
C5158
C5159
C5157
C5160
C5232
C5233
C5240
C5234
C5241
C5235
C5243
C5239
C5246
C5248
C5253
C5252
C5251
C5254
C5255
C5244
C5242
C5241
C5231
C5215
C5214
C5213
C5212
C5211
C5203
C5205
C5206
C5208
C5209
C5236
C5237
C5238
C5247
C5263
C5262
C5261
C5245
C5301
C5302
C5223
L5241
L5242
L5202
L5261
L5246
L5244
L5245
L5243
L5211
L5201
Q5261
Q5262
Q5263
Q5211
Q5212
Q5213
Q5214
Q5215
Q5216
Q5217
Q5218
Q5219
Q5226
Q5231
Q5232
Q5233
Q5234
Q5235
Q5236
Q5237
Q5238
Q5239
Q5240
Q5241
Q5242
Q5243
Q5244
Q5245
Q5246
Q5247
Q5248
Q5249
Q5250
Q5251
Q5252
Q5253
Q5254
Q5255
Q5256
Q5257
Q5258
Q5259
Q5260
Q5261
Q5262
Q5263
Q5264
Q5265
Q5266
Q5267
Q5268
Q5269
Q5270


MTS TONE/VOL
AV SW
AUDIO OUT
UL MARK
CN5001
IC5001
IC5501
J5501
J5502
J5503
J5504

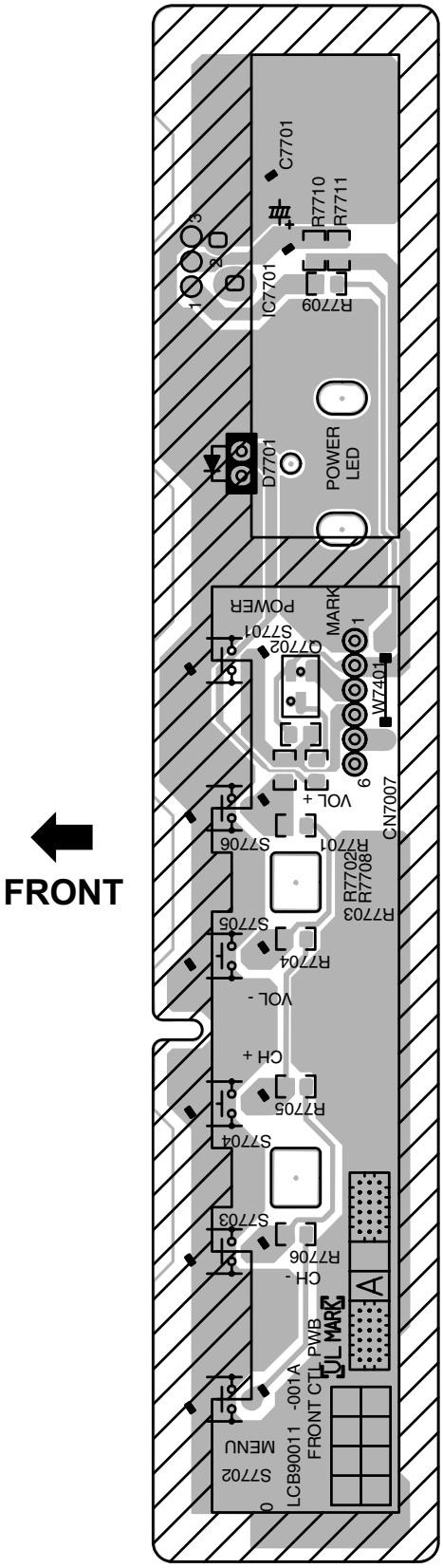
CRT SOCKET PWB PATTERN



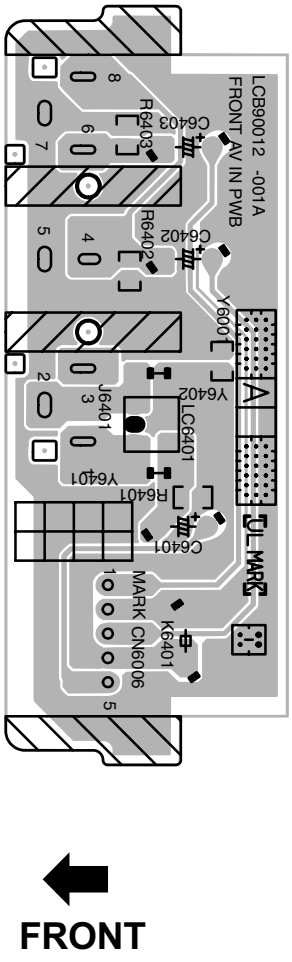
PIP PWB PATTERN



FRONT CONTROL PWB PATTERN



FRONT AV IN PWB PATTERN



CHANNEL CHART (US)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		Ⅰ
			03		
			04		
			05		
			06		
		VH	07		Ⅱ
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	Ⅰ
			B	15	
			C	16	Ⅱ
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
			P	29	
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		HYPER	W+1	37	
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	Ⅳ
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
			W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
		ULTRA	W+29	65	
			W+30	66	
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35	71	Ⅳ
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
			W+60	101	
			W+61	102	
			W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
			W+70	111	
			W+71	112	
			W+72	113	
			W+73	114	
			W+74	115	
			W+75	116	
			W+76	117	
			W+77	118	
			W+78	119	
			W+79	120	
			W+80	121	
			W+81	122	
			W+82	123	
			W+83	124	
			W+84	125	
		SUB MID	A-8	01	Ⅰ
			A-4	96	
			A-3	97	
			A-2	98	
			A-1	99	
○	×	UHF	14 ⟆ 69		Ⅳ
TOTAL 180CH ⎧ VHF 124CH ⎩ UHF 56CH					

NOTE:
TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES.
SPECIAL ADAPTERS MAY BE REQUIRED.

CHANNEL CHART (CA)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02		Ⅰ
			03		
			04		
			05		
			06		
		VH	07		Ⅱ
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	
			B	15	
			C	16	
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			K	24	
			L	25	
			M	26	
			N	27	
			O	28	
			P	29	Ⅲ
			Q	30	
			R	31	
			S	32	
			T	33	
			U	34	
			V	35	
			W	36	
		HYPER	W+1	37	
			W+2	38	
			W+3	39	
			W+4	40	
			W+5	41	
			W+6	42	
			W+7	43	
			W+8	44	
			W+9	45	
			W+10	46	
			W+11	47	
			W+12	48	
			W+13	49	
			W+14	50	
			W+15	51	
			W+16	52	
			W+17	53	
			W+18	54	
			W+19	55	
			W+20	56	
			W+21	57	
			W+22	58	
			W+23	59	
			W+24	60	
			W+25	61	
			W+26	62	
			W+27	63	
			W+28	64	
		ULTRA	W+29	65	Ⅳ
			W+30	66	
			W+31	67	
			W+32	68	
			W+33	69	
			W+34	70	
			W+35	71	
			W+36	72	
			W+37	73	
			W+38	74	
			W+39	75	
			W+40	76	
			W+41	77	
			W+42	78	
			W+43	79	
			W+44	80	
			W+45	81	
			W+46	82	
			W+47	83	
			W+48	84	
			W+49	85	
			W+50	86	
			W+51	87	
			W+52	88	
			W+53	89	
			W+54	90	
			W+55	91	
			W+56	92	
			W+57	93	
			W+58	94	
			W+59	100	
		ULTRA	W+60	101	Ⅳ
			W+61	102	
×	○		W+62	103	
			W+63	104	
			W+64	105	
			W+65	106	
			W+66	107	
			W+67	108	
			W+68	109	
			W+69	110	
			W+70	111	
			W+71	112	
			W+72	113	
			W+73	114	
			W+74	115	
			W+75	116	
			W+76	117	
			W+77	118	
			W+78	119	
			W+79	120	
			W+80	121	
			W+81	122	
			W+82	123	
			W+83	124	
			W+84	125	
		SUB MID	A-8	01	Ⅰ
			A-4	96	
			A-3	97	Ⅱ
			A-2	98	
			A-1	99	
○	×	UHF	14 ∫ 69		Ⅳ

TOTAL 180CH
{ VHF 124CH
{ UHF 56CH

NOTE:
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